CLAIMS

1. A device for adhering at least one cell in a specific and predetermined pattern comprising:

a plate defining a surface, and

a plurality of cytophilic islands that adhere cells on said surface isolated by cytophobic regions to which cells do not adhere contiguous with said cytophilic islands, wherein said cytophilic islands are formed of a self-assembled monolayer and said cytophobic regions are sufficiently wide to prevent cells adhered to said cytophilic islands from contacting each other except via formation of cellular bridges above and free of adhesive contact with said cytophobic regions.

2. A device for adhering at least one cell in a specific and predetermined pattern comprising:

a plate defining a surface, and

a plurality of cytophilic islands that adhere cells on said surface isolated by cytophobic regions to which cells do not adhere formed of a self-assembled monolayer contiguous with said cytophilic islands, wherein said cytophobic regions are sufficiently wide to prevent cells adhered to said cytophilic islands from contacting each other except via formation of cellular bridges above and free of adhesive contact with said cytophobic regions.

3. In a method for culturing cells on a surface or in a medium on a surface, the improvement comprising:

providing a plate defining a surface and a plurality of cytophilic islands that adhere cells on the surface isolated by cytophobic regions to which cells do not adhere contiguous with said cytophilic islands, wherein said cytophilic islands are formed of a self-assembled monolayer and said cytophobic regions are sufficiently wide to prevent cells adhered to said cytophilic islands from contacting each other except via formation of cellular bridges above and free of adhesive contact with said cytophobic regions; and

culturing the cells on one or more of the cytophilic islands or in a medium on a said one or more cytophilic islands.